MAGICARD 300 Color Printer

MAGICARD 300
MAGICARD 300*plus*
MAGICARD *Sprinter*

(inc. Mag Encoding options)

Quick Start Guide
Printer/Software Setup

Setting up your MAGICARD Color Printer takes just three easy steps:

1. Unpack and install the printer

A	**Preparing a Location for the Printer**
B	**Removing the Printer from the Box**
C	**Checking the Package Contents**
D	**Install the Dye Film**
E	**Load the Plastic Cards**
F	**Connect the Printer to a Power Supply**
G	**Test the Printer Operation**
H	**Install the Parallel Interface Cable and Ultra Secure Key**

2. Load the supplied WINDOWS Driver software.

Ix	**Install the WINDOWS Driver** (WINDOWS 3.x)
Iy	**Install the WINDOWS Driver** (WINDOWS 95)
J	**Printer Setup**

3. Verify computer-to-printer operation.

K	**Verifying Computer to Printer Communication in WINDOWS**
L	**In Case of Difficulty.**
M	**Important Cleaning procedures.**
N	**LED Error Codes**

Note: The Ultra WEB site at **http://www.ultra.co.uk** contains comprehensive technical support information including the latest downloadable software, WINDOWS Drivers, Technical Bulletins etc

Conventions

Throughout this guide, the following conventions are used to identify important information.

WARNING - *Warning messages indicate where personal injury could result from not following the correct procedures.*

CAUTION - *Caution messages indicate where damage to equipment could result from not following the correct procedures.*

**NOTE** - *Notes convey important information that is identified within the text.*

Preparing a Location for the Printer

A

- A clean, level surface.
- Adequate space for:
  - opening the Card Collection Door
  - opening the Top Cover
  - cable access at the rear.
  - allowance for air circulation.
- An adequately ventilated room.

Location Requirements for your printer:

- An adequate power supply.
- Ambient temperature +10 to +30 deg C.
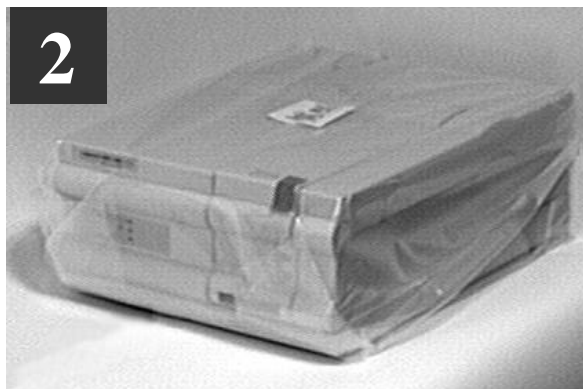- Relative Humidity 20/70% RH.
- Protection from direct sunlight and

Card Collection Door

Top Cover
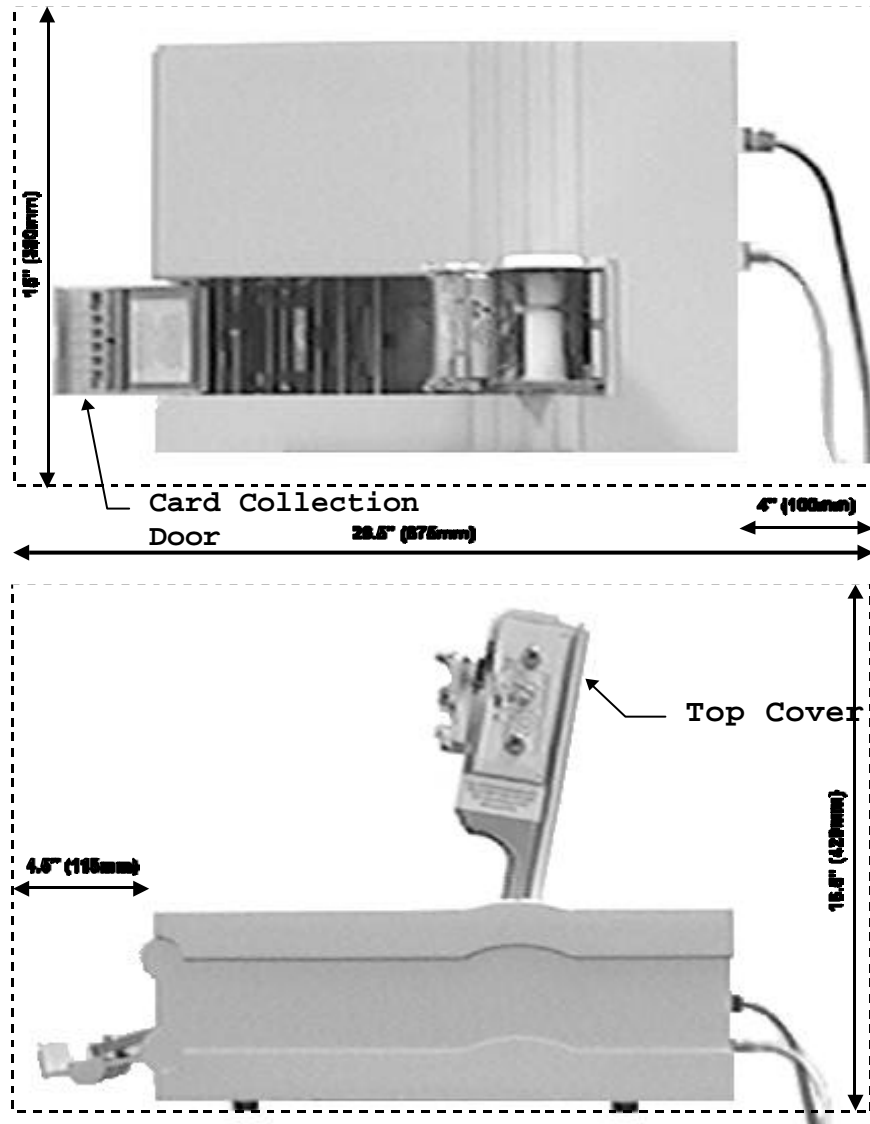
chemicals.
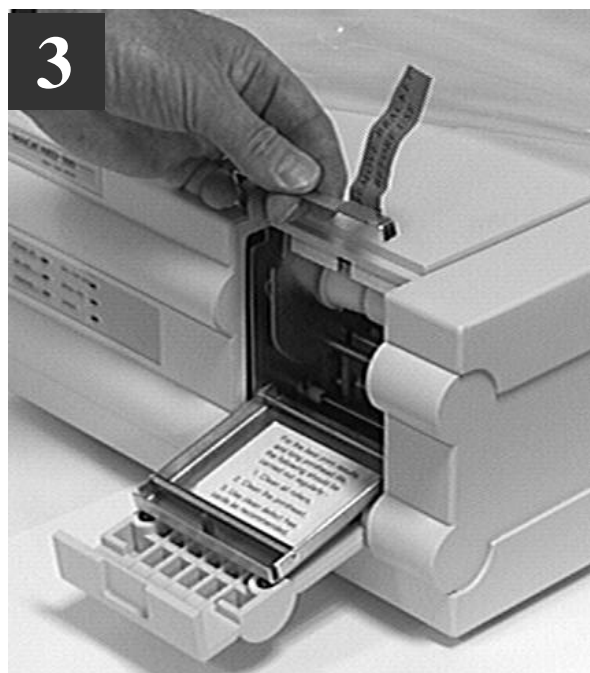- Protection from abrupt temperature changes.

B Removing the Printer from the Box

Carefully open the box and remove any accessories.

Place on a smooth, level table and remove the polyethylene container.

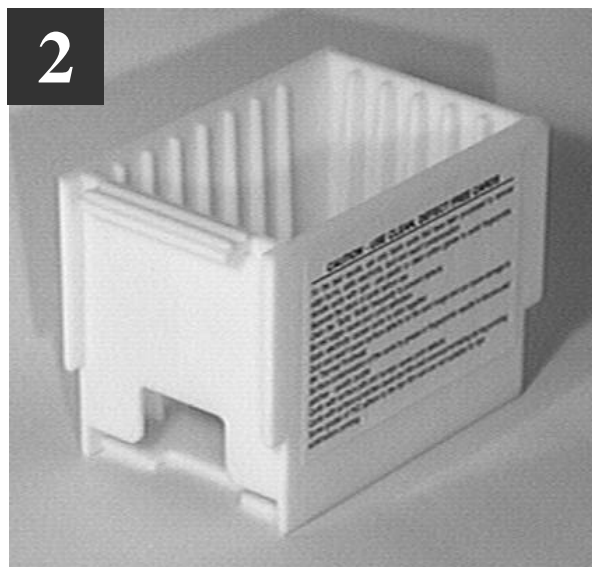Open the front door and remove the metal shipping clip from the chassis.
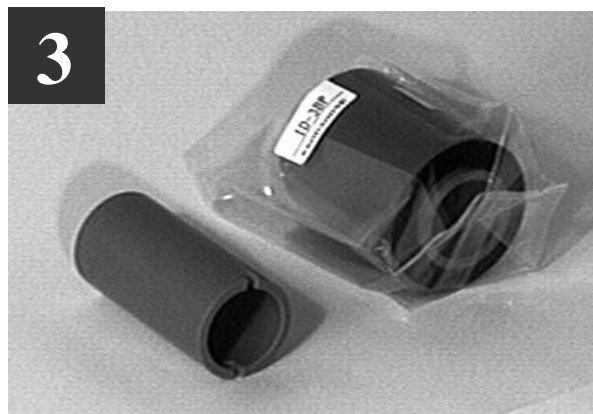
Checking the Package Contents $\boxed{C}$

Locate each item as listed below:

The MagiCard Color Printer

The Card Cassette

A Roll of Dye Film and a Take-up Core

(Only supplied as standard with certain Models)

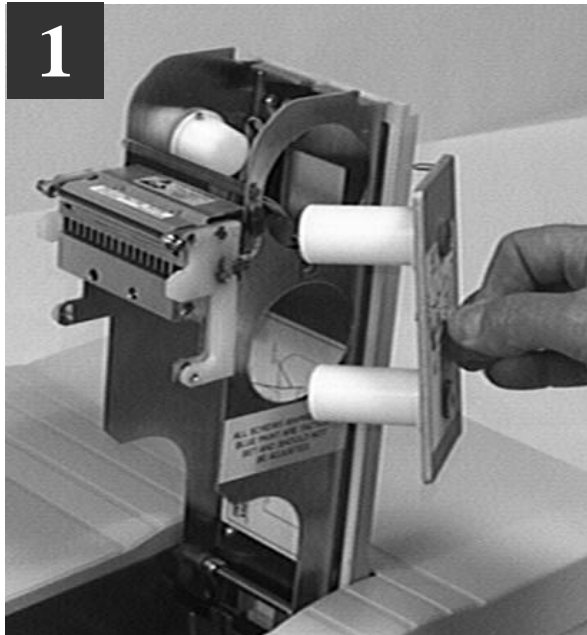**A Power Cord with Molded Plug for your Country**

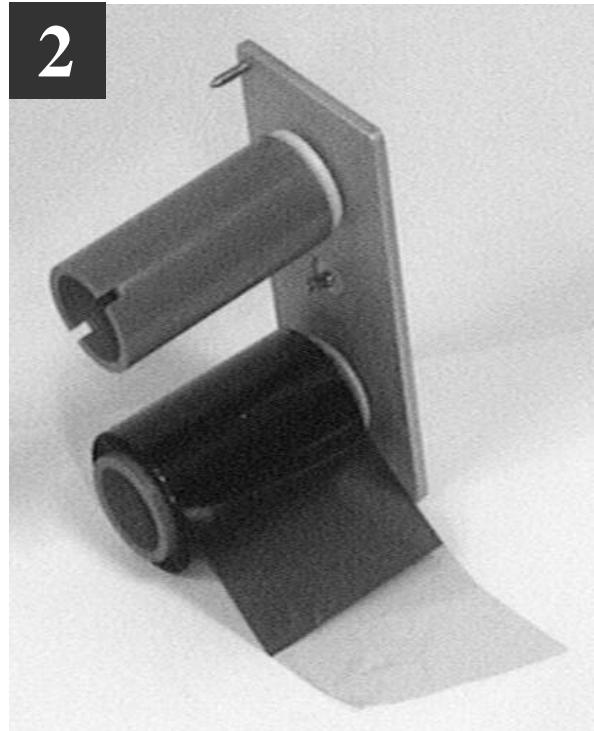**Envelope containing this Quick Start Guide and the PrintMAGIC WINDOWS Driver 3.5" floppy disk.**

Envelope containing 5 Cleaning Cards and 1 Thermal Printhead Cleaning Pen.

Install the Dye Film D

Open the Printer Cover by lifting the "Dzus" fastener ring and turning a quarter turn anti-clockwise. Remove the Dye Film carrier.
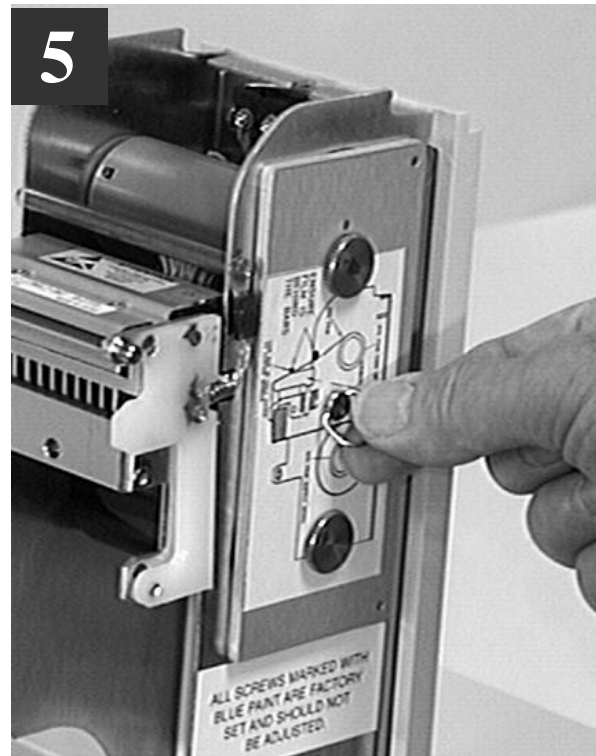

Open the Dye Film package. Fit the dye film on the lower boss, observing the correct orientation of the dye film.
Fit the empty take-up core on the upper boss, observing the correct orientation of the notches on the Take-up Core.

Replace the Film Carrier

4

Manually turn the Spur Gear until the slots on the core engage with the lugs.

5

Turn the 'Dzus' Fastener 1/4 turn clockwise to lock in place. Lay the ring flat against the panel

6

Pull about 6" of dye film off the roll of dye film, observing that it should be coming off the top of the roll, as per the label illustrations.

**Avoid touching the tip of the thermal printhead with your hands.**

Feed the leading edge of the dye film over the tip of the Thermal Printhead and beneath the two guide bars, where fitted. (Refer to the diagram on the side).

Fasten the end of the dye film onto the Take-up Core with a small piece of adhesive tape, and wind on a couple of turns. Avoid creasing of the dye film and position it centrally on the core.

E Load the Plastic Cards

1
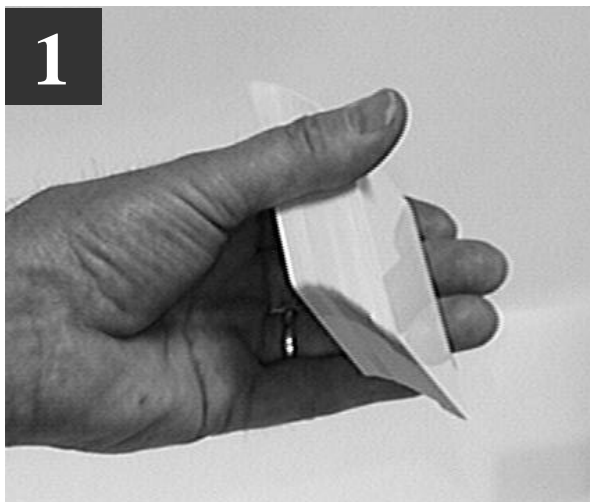
Flex a stack of plastic cards, to make sure they are not 'stuck' together. Avoid touching the surfaces to be printed.

2
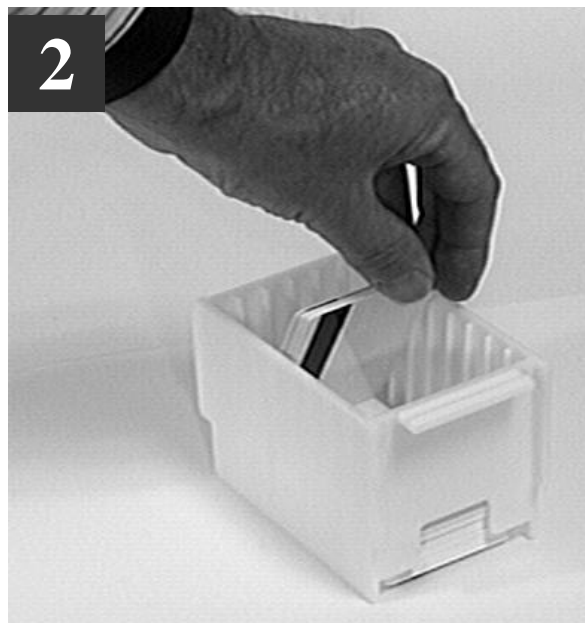
Drop the cards flat down into the plastic Cassette, side to be printed uppermost, mag stripe to the left and facing down (if used).

3a
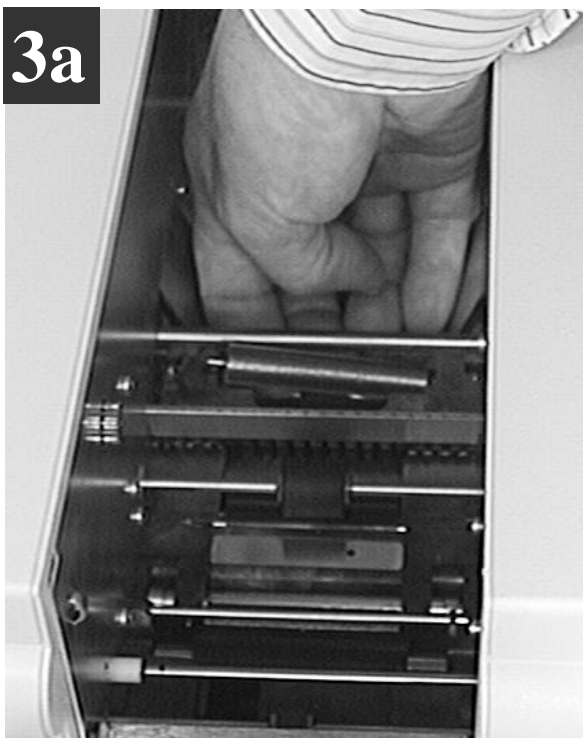
Remove the 'tacky' roller before each batch of 100 cards, by putting your fingers beneath it and "snapping" out the left hand end of the roller. Remove surface dust by using a strip of 'Scotch' adhesive tape, and "snap" back into place.

3b

Install the Cassette into the Printer.
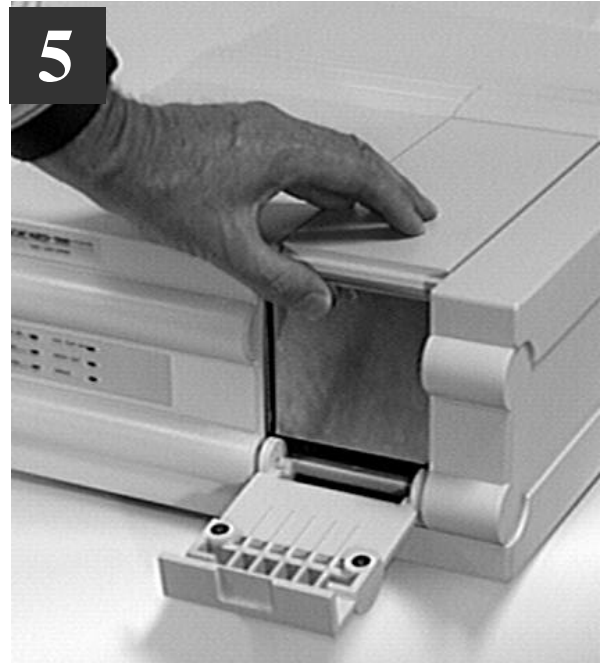
Close the Printer Cover and secure the front latch.

Close the Printer Door

F Connect the Printer to a Power Supply

1

Locate the Mains Voltage Selector Switch on the rear panel and check that it is correct for your country - select 115V or 230V.

2

Locate the ON/OFF Switch and check that it is in the OFF position.

3

Plug in the Power Cord. Plug the other end into a Power Supply socket.

4

Switch ON. The indicators should all flash and the motors run briefly. Finally, the POWER ON and ON LINE will remain ON.

Test the Printer Operation

Print an Internally-Generated Test Card to make sure your printer is working correctly:

1

At the rear of the printer, locate the TEST Push-button. This is located in the rear panel, just above the Centronics parallel interface connector.

In early models, it may be located through a small hole in which case it may be operated by means of a small insulated screwdriver, match-stick or blunt cocktail stick.

Press the push-button momentarily.

2
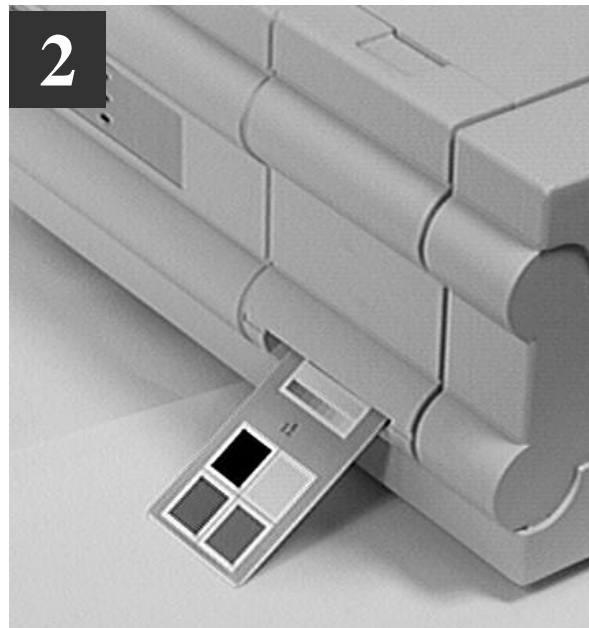
It will take a few seconds before printing commences. When finished, a Test Card will be ejected from the aperture in the Front Panel.

3
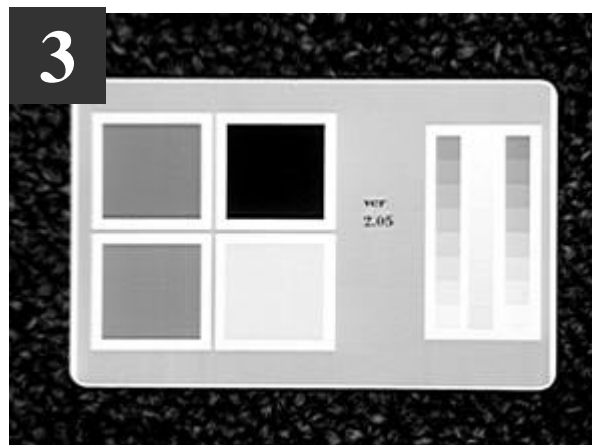
The card should be as shown, with Yellow-Magenta-Cyan-Black panels, a Cyan background and Yellow-Magenta-Cyan graduated scales. This card can only be printed by a printer in isolation, when using UR1 Dye Film. Note also that

**the internal software version is printed
on the test card.**

H Install the parallel Interface Cable and Ultra Secure Key

1
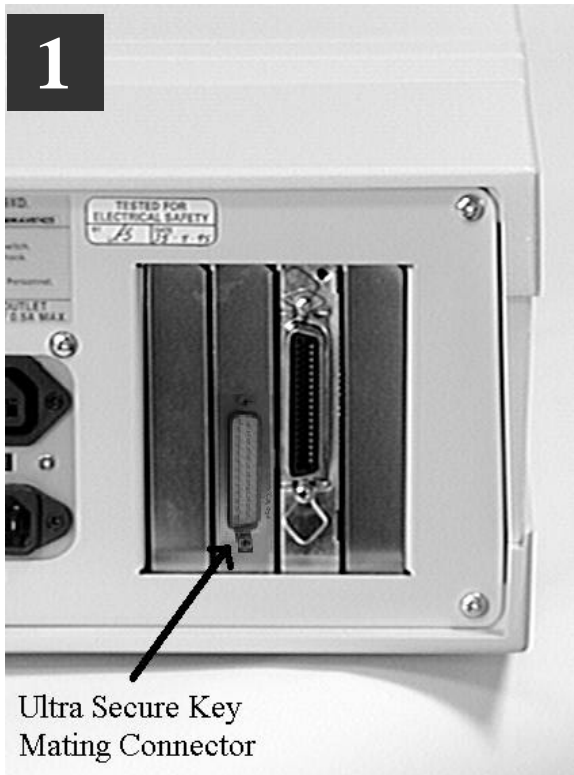
Ultra Secure Key
Mating Connector

Switch the printer OFF. Locate the Parallel Interface connector on the rear panel.

Note the position for the Ultra Secure Key at the rear of the Magicard Printer.

2

Plug a good quality, screened Centronics Interface cable into this socket and secure the wire latches. Plug the other end into the Printer connector of your PC (LPT1 or LPT2)

3

Install the
WINDOWS Driver **Ix**

Procedure to be followed if your PC uses
WINDOWS 3.1 or 3.11.:

- Start WINDOWS and in the **MAIN** group, select and open the **Control Panel** window:
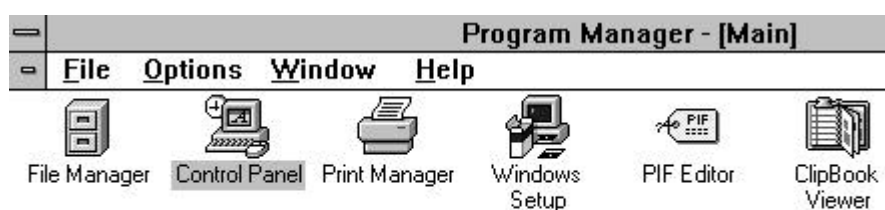
- Select and open the **PRINTERS** icon:
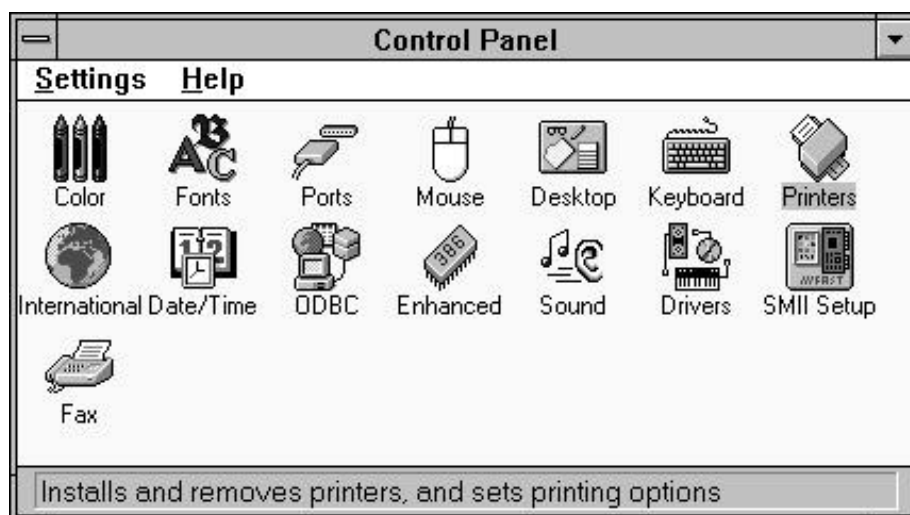
- Select the **ADD>>** button, the **List of Printers** will appear.
  In the **List of Printers**, select **Install Unlisted or Updated Printer**:
  Select the **Install.....** button.
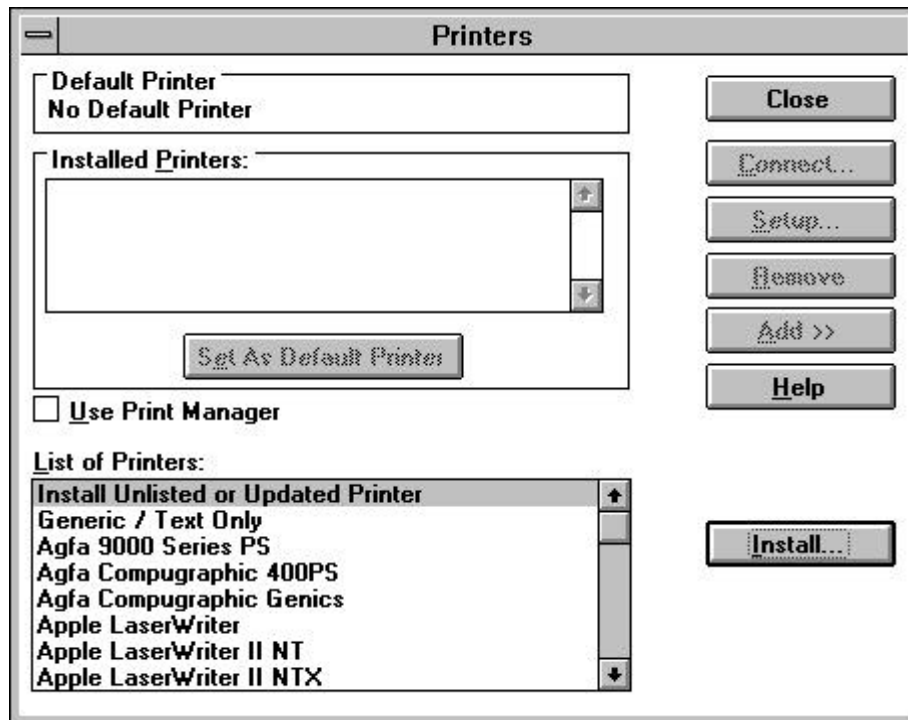
- A dialog box appears, instructing you to **Insert unlisted, updated or vendor-provided printer driver disk in: Drive A:**
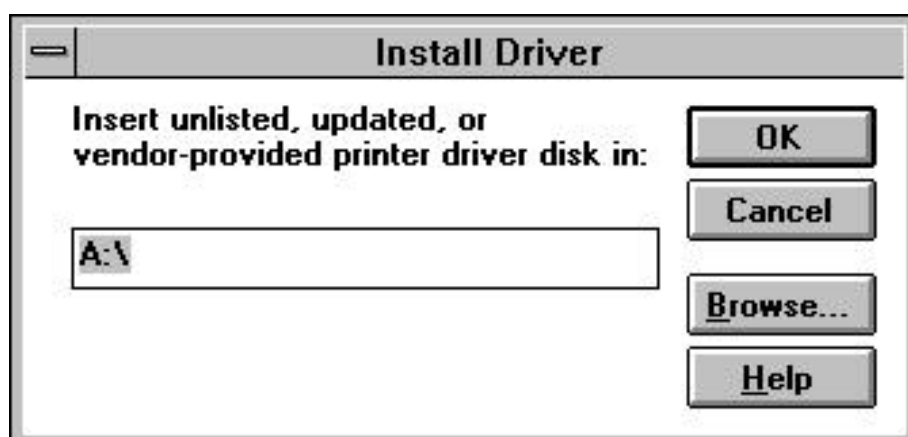
- Insert the PrintMAGIC WINDOWS Driver Disk into the floppy disk drive A.
  Select the **OK** button:

- Another dialog window appears, listing the PrintMagic MAGICARD Printer Driver.
  Select the PrintMagic Printer.
  Select the **OK** button:
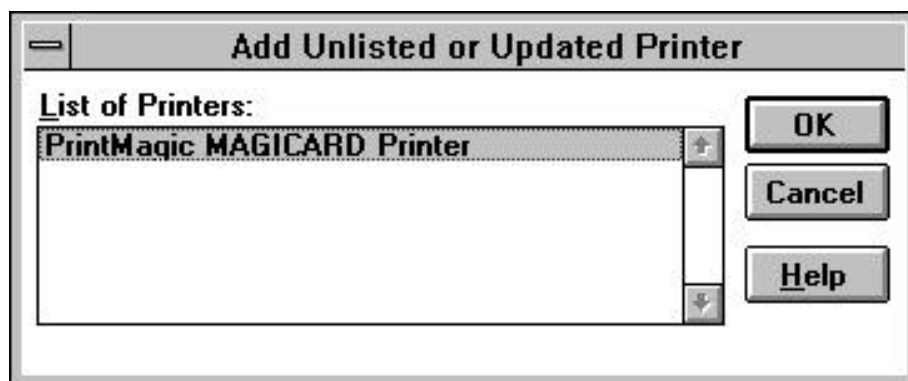
- After about 30 seconds, the **Printers** window appears and the **PrintMagic MAGICARD Printer on LPT1** should have been added to the **Installed Printers** list.
  Press the **Set as Default Printer** button.
  DO NOT check the **Use Print Manager** check box.
  Select the **Close** button.
  Close the **Control Panel** window.
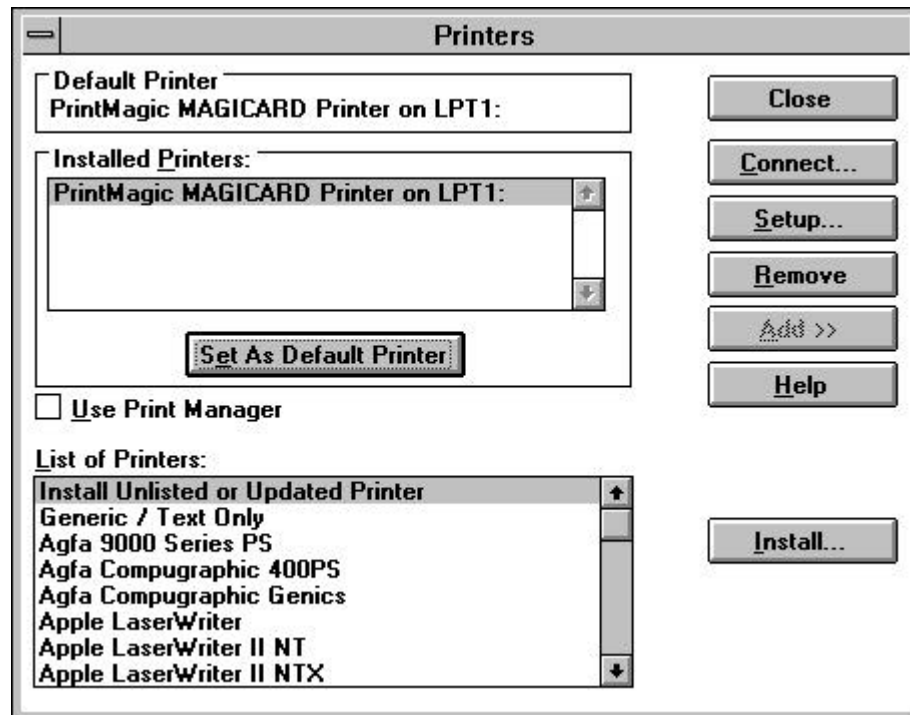
NOTE: *The above procedure assumes that the floppy disk drive on your PC is Drive A and also that the printers parallel port on the PC is LPT1. Change the settings if appropriate.*

Install the WINDOWS Driver Iy

Procedure to be followed if your PC uses WINDOWS 95.:

- Start the PC and from the desktop select the **My Computer** folder.
  Select and open the **Printers folder**:
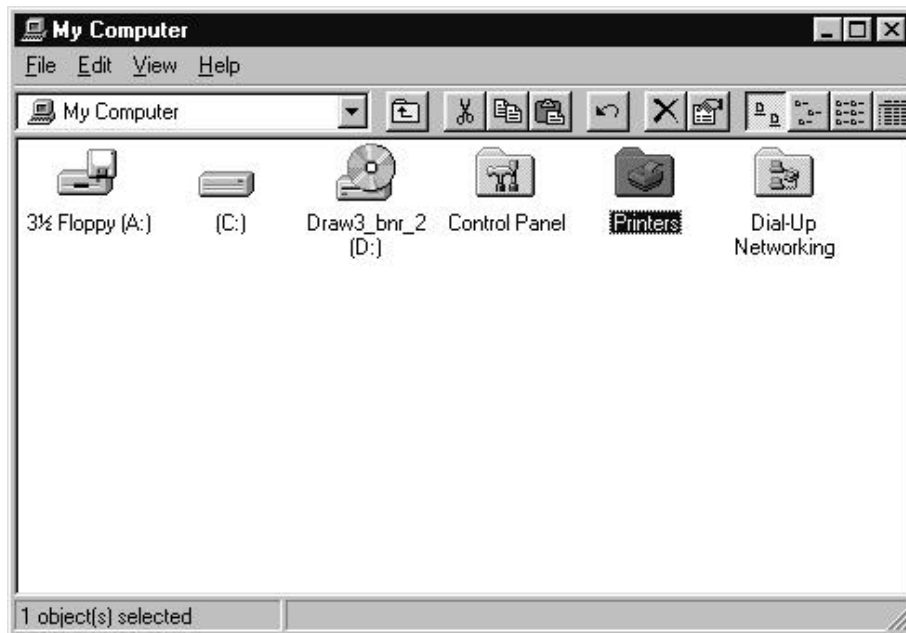
- Select and open the **Add Printer** icon.

- Select the **Next>** button:

- Select the **H**ave **Disk** button:
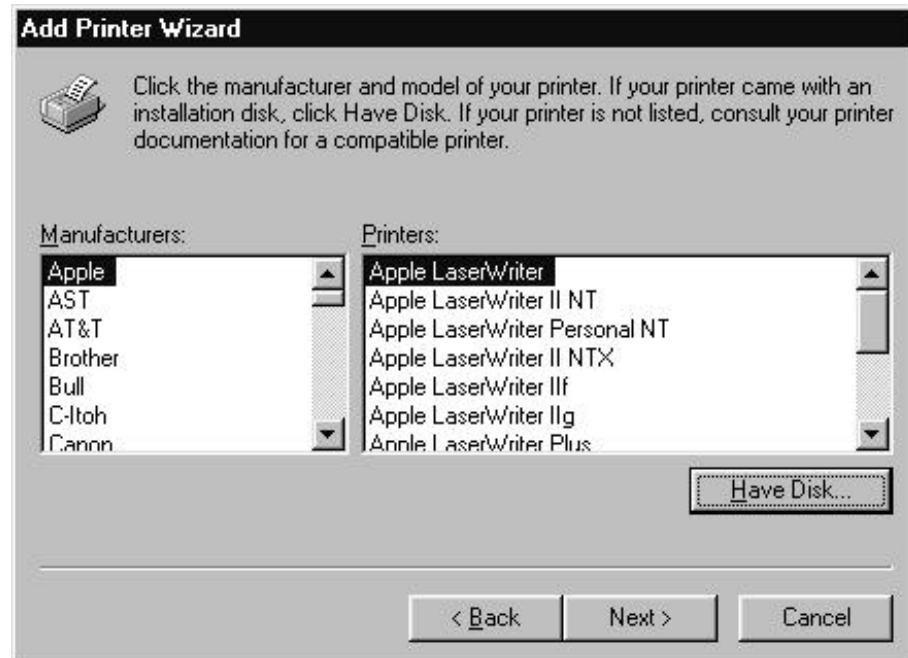
- Insert the PrintMagic WINDOWS Driver Disk into the PC Drive A.

- Select the **OK** button:

- Select the **Next>** button:
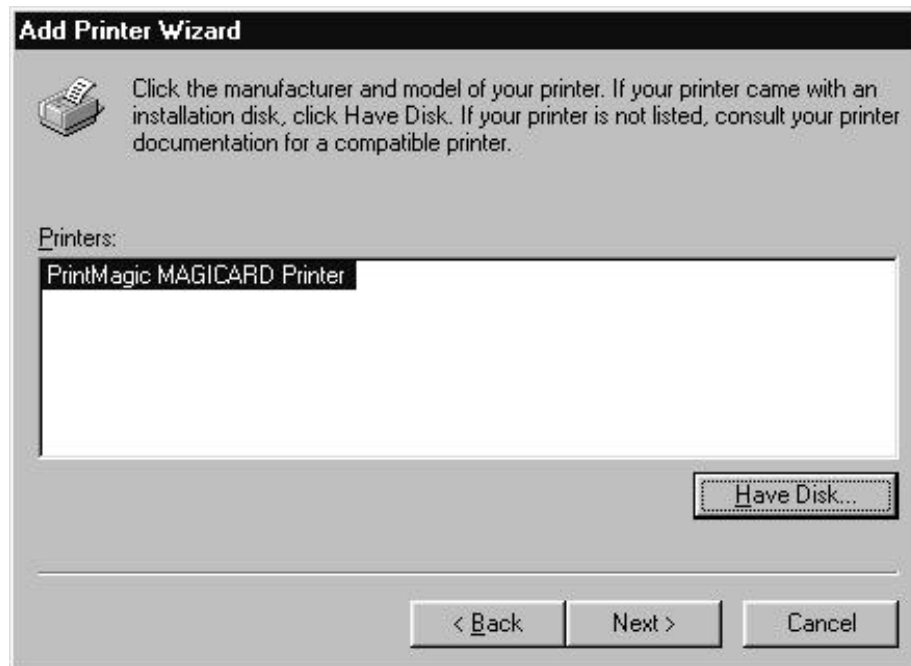
- Select the desired port (usually **LPT1**) and select the **Next>** button:

You may then be offered the choice of which printer to use as the default printer. Select the **PrintMagic MAGICARD Printer** and then select the **Next>** button:

- If you opt to print a test page, do so only if the printer is connected, switched ON, loaded with cards and dye film and ready to run. The test page may be incomplete.
  Select the **Finish** button to complete the installation.

J Printer Setup

Printer Setup procedure to be followed if the default setting differ from your requirement:

Printer Setup

Changes to the printer setup options performed via the Control Panel are non-volatile, until subsequently changed, even though the PC may be switched off after use. Most software applications provide the means to change the printer setup but be warned - these settings may prove to be volatile with some applications and your settings may be lost. Play safe and use the Control Panel.

For WINDOWS 3.x

- Start WINDOWS and in the **MAIN** group, select and open the **CONTROL PANEL** window.
- Select and open the **PRINTERS** icon.
- The **PRINTERS** dialog box appears.
- Highlight the **PrintMagic MAGICARD Printer** Driver and from the Options menu, select **PRINTER SETUP**.
- The **PrintMagic Printer Setup** window appears, which has six pages, any of which may be viewed by clicking on the appropriate tab.

For WINDOWS 95

- Go to the "My Computer" folder.
- Double Click on the Printers folder.
- Double Click the PrintMagic MAGICARD Printer icon.
- Select "Printer" from the menu and go to Properties.
- Select the Details tab.
- Select the Setup button.

Setup Options

The PrintMagic™ printing system is designed to provide the best print output default settings for your printer. If you need to alter the default settings, the PrintMagic™ printer driver provides you with easy-to-use tab dialog boxes.

Along the bottom of the setup dialog boxes is a row of four Pushbuttons, **OK**, **Cancel**, **Defaults** and **Help**.

Initialise the Setup

Initialise the setup by pressing the **Default** pushbutton.

Image Aspect

On this page, the card orientation may be set. There are four options:-

- **Standard**   Prints images on a card with a border. (MAGICARD 300 and MAGICARD 300 plus).
- **Rotate 180 Degrees**   As Standard, but rotated 180 degrees.
- **Full Card**   Full-bleed printing up to the card edges. (MAGICARD 300 plus only).(
- **Full Card 180 Degrees**   As Full Card but rotated 180 degrees.

Opposing Rotation Between Sides is only significant if interfacing to a Magicard Flip Double-Sided printing model.

The number of copies may be set from 1 to 255.

Colour Format / Film
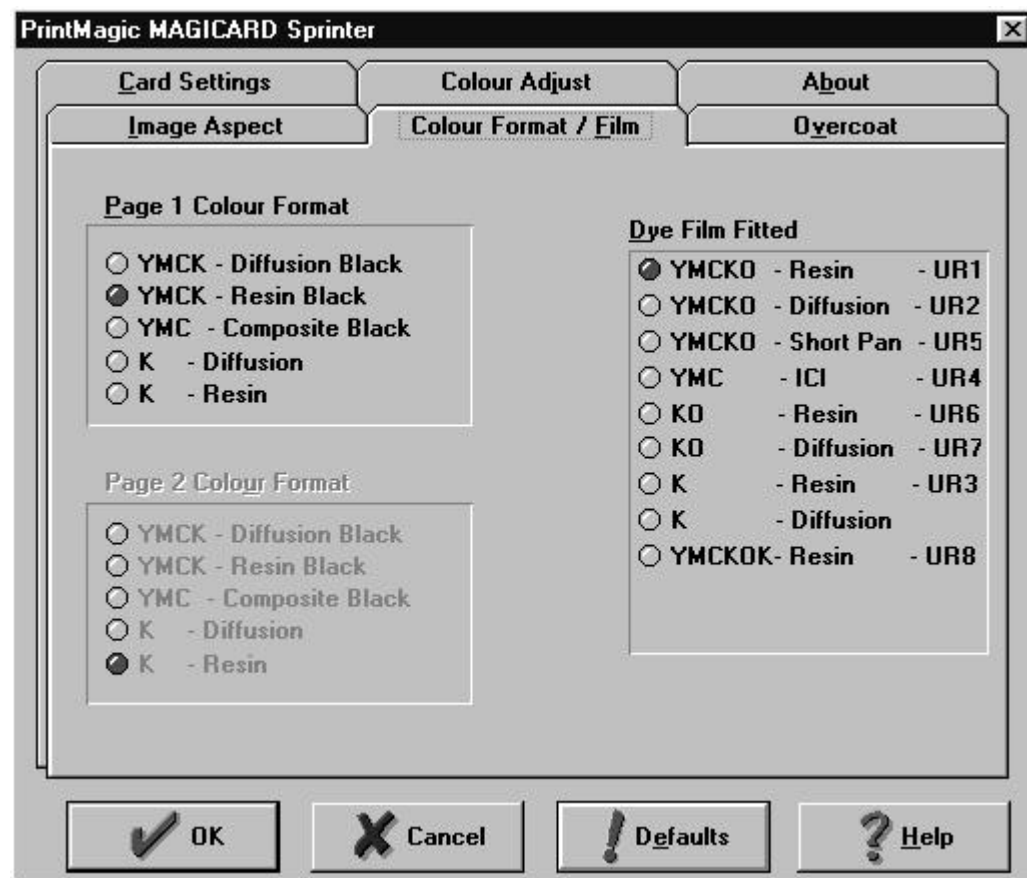
Dye Film Fitted tells the printer which kind of dye film you have installed. The dye film supplied with your printer is five panel UR1 dye film. Leave the default selection at YMCKO - Resin. Note that UR8 dye film is only valid for the Magicard Flip Model.

Page 1 Color Format tells the WINDOWS Driver which dye film panels to use on your card. For printing on the resin black dye panel leave the default selection at YMCK - Resin Black. For a simple color image select YMC-Composite Black.

Page 2 Color Format applies only to Magicard Flip models.

Overcoat
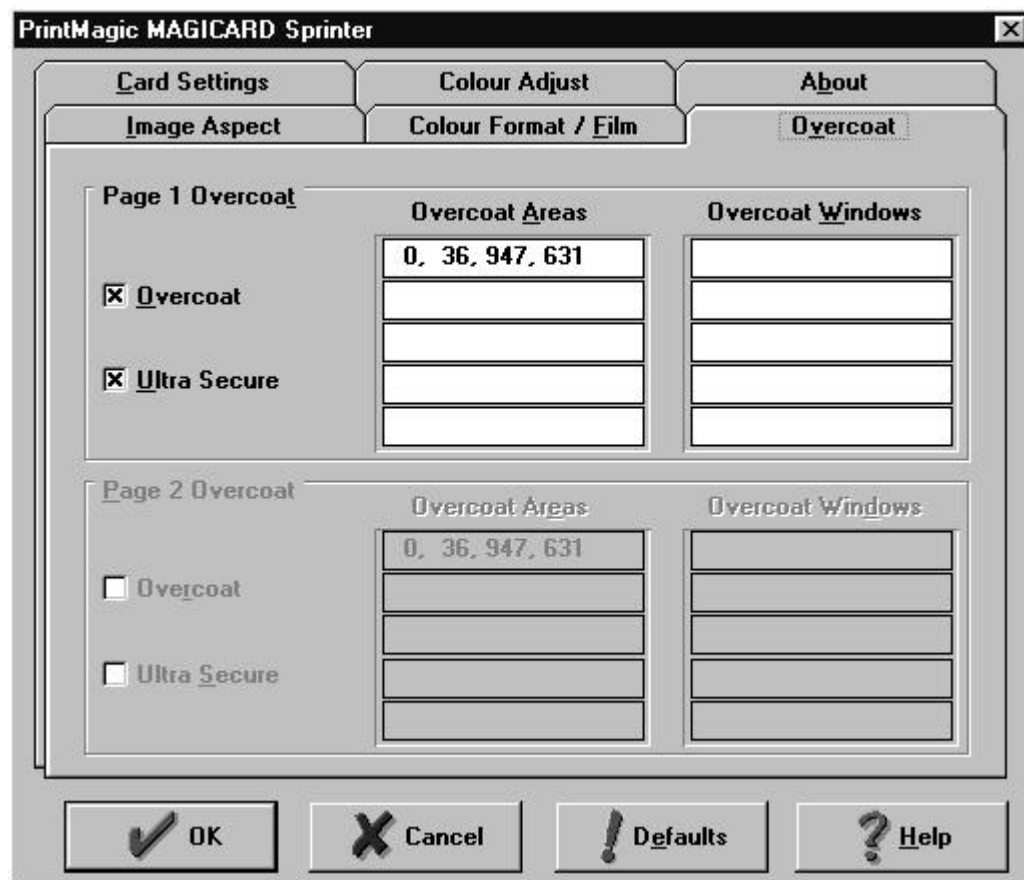
Page 1 - Overcoat check box can be used to turn overcoating on and off.

Page 1 - Ultra Secure check box can be used to turn this security feature on and off. An Ultra Secure key must of course be fitted to enable this feature.

Page 1 Overcoat Areas/Windows can select the options for specific areas of the card to be overcoated, or for windows to be left in the overcoat (up to five in each case). Overcoating is a 2.5 micron layer of transparent acrylic protection that is available with some types of dye film (For example the "O" in "YMCKO" dye film). The default settings are for complete coverage to the card margins. For MAGICARD 300 it is 0,36,947,631 and for MAGICARD 300 plus it is 0,0,985,641. The four numbers are the X and Y coordinates of the bottom left and top right corners of each area.

Page 2 Overcoat settings apply only to Magicard Flip models.

Card Settings
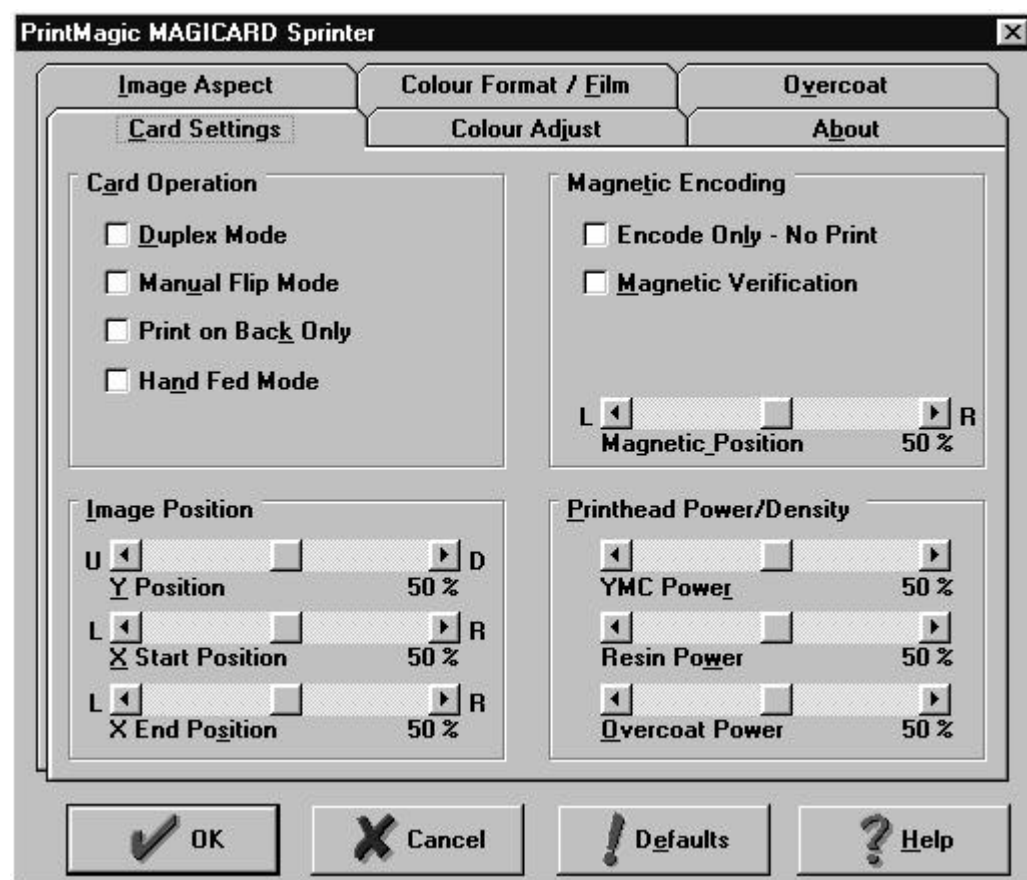
Duplex Mode - when checked, will convert the driver to allow double-sided printing. this function only applies to Magicard Flip models so leave this checkbox switched off.

Manual Flip Mode - allows operators, running non-Flip models, to manually turn the printed card over and reinsert for printing on the back.

Print on Back Only - For Magicard Flip models only, leave unchecked.

Hand Fed Mode - If this switch is checked then the printer will not feed a card from the hopper but will allow the operator to insert a card from the front. If the card is not inserted within 20 seconds then the printer will return to standby.

Encode Only - No Print - For magnetic encoding models only . Checking this box will prevent any printing on the card, but will encode on the magnetic stripe only.

Magnetic Verification - For magnetic encoding models only. With this box checked the magnetic code will be validated before printing. For interfacing to earlier models, leave unchecked to prevent file errors.

Magnetic Position - For magnetic encoding models only. This adjustment allows the operator to reposition the magnetic stripe to accomodate various swipe readers. A 1% shift is approximately 0.1mm. Scrolling to the L (left) will move the position of the start of the magnetic data (Start Sentinel) closer to the edge of the card. For interfacing to earlier models, leave set at the default value of 50, to prevent file errors.

Y Position - This adjustment allows the operator to centralise the image which may be offset due to the printhead position. A 1% shift is approximately 0.1mm

X Start Position - This function allows the operator to adjust the position of the start of the image. A 1% shift is approximately 0.1mm. For interfacing to earlier models, leave set at the default value of 50, to prevent file errors.

X End Position - This function allows the operator to adjust the position of the start of the image. A 1% shift is approximately 0.1mm. This adjustment only applies to Full Bleed models. For interfacing to earlier models, leave set at the default value of 50, to prevent file errors.
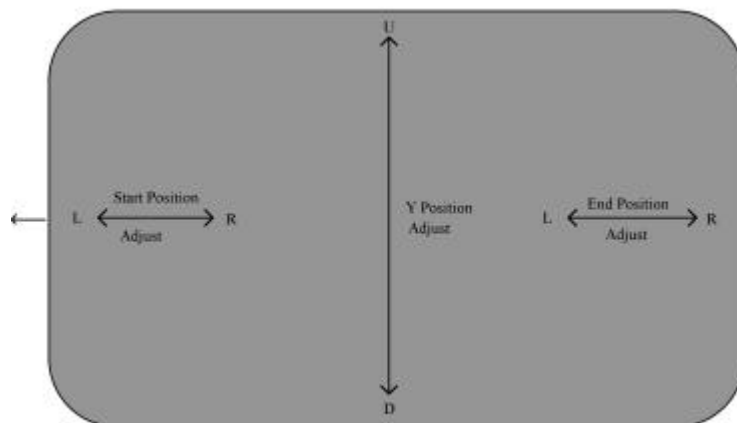
YMC Power - allows the user to adjust the density of the Yellow, Magenta and Cyan print. For interfacing to earlier models, leave set at the default value of 50, to prevent file errors.

Resin Power - allows the user to adjust the density of the Black Resin print.

Overcoat Power - allows the user to adjust the density of the Overcoat print. For interfacing to earlier models, leave set at the default value of 50, to prevent file errors.

Colour Adjust

The default values for the Contrast, Brightness and color balance of the printed card may be changed in this setup tab. Unless you know what you are doing, avoid changing the defaults.

About

Data on this page is for information only.

When the printer set up selections have been made, click on the **OK** button to close the setup window and to accept any changes that have been made.

Note: *Although you may be able to access the Printer Setup dialog window from within a WINDOWS application, with some applications, the selected settings will prove to be volatile, and will be lost when you quit WINDOWS.*

Click on the **RESTORE** button to return to the original default values.

Click on the **CANCEL** button to close the setup window and to abandon any changes that have been made.

For further information on installing and configuring printers to your PC, operating in a WINDOWS environment, consult the Microsoft WINDOWS User's Guide.

Printing Monochrome Bitmaps

Driver versions 4.01 and later has an option to print graphics using the resin black panel of the dye film. To print a bitmap on the resin black panel the format must be as a 1 Bit Bitmap image file.

Mag Encoding using the WINDOWS Driver

If you wish to use the magnetic encoder from within a WINDOWS application, create a text string with a tilde (~) symbol at the beginning and place the string anywhere on the image, using a black true type font.

For example, to encode the word "HELLO" on to Track 1 at 210 bpi on a HiCo card, the instructions and data string placed on the image should be:-

<div align="center">

`~1,BPI210,MPC7,COEH,%HELLO?`

</div>

The Magicard 300M printer allows you to encode HiCo and LoCo cards, at 75 or 210 bpi, on any of the three tracks, at 5 or 7 bits per character, with complete freedom.

To ensure the encoded card is recognised by the swipe reader the encoded data must comply with the ISO Standards. For copies of specifications contact:

> AMERICAN NATIONAL STANDARDS INSTITUTE
> 11W. 42ND Street
> New York, New York 10036
> Tel: (212) 642-4900

Parallel Port Configuration

Non-ECP Operation

If you are using Windows 3.x or if you are using Windows 95 but are unfamiliar with the process of reconfiguring your parallel port for ECP operation, we suggest you use the driver in its "NON-ECP" mode. This is the default mode, and you do not have to do anything other than install the driver to use it. The NON-ECP mode is compatible with Windows 3.x and Windows 95 and uses the parallel printer port in its conventional "Centronics" configuration. In this mode download will take around 17 seconds.

ECP Operation

The ECP mode of the driver can be used only with Windows 95 and uses the parallel port in its "Enhanced Capability" mode to provide a faster download time of around 7 seconds.

Unfortunately, although most PC's are stated to be "ECP compatible" there are still many so called compatible PC's which cannot be properly configured to operate efficiently in ECP mode, either because the interface hardware on the motherboard is incompatible, or because the BIOS firmware does not fully support ECP mode.

There have even been some reports of Windows 95 itself containing bugs which interfere with ECP operation under certain conditions.

To use this mode you need to select ECP mode for the LPT1 port using the control panel, and you may also need to set up your BIOS to operate efficiently in ECP mode.

Which Mode Should I Use

Windows 3.x: Use the NON-ECP mode.

Windows 95: If you are unhappy about reconfiguring your computer's BIOS, or are uncertain whether your computer is fully ECP compliant, we suggest you use the NON-ECP mode. You can always switch to the ECP version later when you are ready, or when you install new system hardware.

Verifying Computer to Printer Communication in WINDOWS

K

The simplest way to verify correct operation is to print a test image from a WINDOWS application:

- Ensure that the Printer is switched **ON** and that the **POWER ON** and **ON LINE** indicators are lit.
- Run a WINDOWS application (badge-making, desk-top publishing or image processing) on your PC, with a suitable image or artwork.
- Ensure that the PrintMagic MAGICARD Printer is the default printer.
- Ensure that the printer cable is connected from the PC to the printer.
- Print the document, by selecting Print from the File menu.
- If the test image - or part of it - prints, the installation is complete and verified.

L   In Case of Difficulty

Check the Installation:

- Repeat the Installation Steps in this Guide.
- Check that the Printer is selected to the correct mains voltage.
- Check that all cables are correctly connected.
- Check the Printer Setup in the WINDOWS Driver.
- Check the dye film and cards are correctly loaded.
- See what happens in the PrintMagic print manager (the icon appears on the Desktop during printing and the print status can be checked).
- Does the PrintMagic DeSpooler window appear on the application, and clear after downloading the image to the printer, or does a red cross appear?
- Does the ON LINE indicator flash during image downloading to the printer?
- If the printer error indicators come on, which ones, and what is the flashing code? (refer to the section on LED error codes).
- Does the printer need cleaning? (Refer to the Section on this page)

For Further Assistance:

- There are a number of useful Technical Bulletins on the MAGICARD WEB page at **http://www.ultra.co.uk/ultra/techbltn.html** - you will need a User Name and Password. If you do not have WEB access, copies can be requested from Customer Service. This is the current list:

Bulletin No.	Description
101	Networking Magicard Printers
102	Windows Drivers - Important Installation Information
103	Configuring your PC to use ECP Protocol
104	Setting-up Procedure for the MAGICARD 300plus Thermal Printhead
105	MAGICARD PCinside - Interconnection
106	MAGICARD PCinside - Installation of a CD-ROM Drive
107	MAGICARD PCinside - Selection of a Video Monitor
108	MAGICARD PCinside - Video Cameras and Frame Grabbers
109	ID Badging Software Packages for WINDOWS
110	MAGICARD Cleaning Procedures
111	International Safety Standards and the Magicard 300 Range
Note:	This List is updated frequently.

- Call your local Dealer, giving the **Model Number** and **Serial Number**, a description of the nature of the problem, and the flashing error codes if present.
- Call the **Ultra Magicard Customer Service Hotline number - +44 (0)1305 762115**

Important Cleaning Procedures M

It is very important that the MagiCard Printer be cleaned at regular intervals in accordance with these instructions. Cleaning Cards and a Cleaning Pen are included with every printer shipped

Thermal Printhead Cleaning

It is recommended that the Thermal Printhead be cleaned after every roll of dye film, i.e. after every 250 cards printed.

CAUTION *Failure to clean the Thermal Printhead after every roll of dye film can result in the build up of residues which cause white lines and streaks in the printed image. The Thermal Printhead is a fragile and expensive item. Care should be taken to avoid damage to the printing surface at its lower edge. The surface of the Thermal Printhead should not be touched with the fingers and under no circumstances should any hard, sharp or abrasive materials be allowed to contact it.*

WARNING *The recommended cleaning materials are inflammable. Clean the Thermal Printhead in a well-ventilated area and avoid naked flames. Extinguish any cigarettes.*

Clean the Thermal Printhead as follows:

1. Switch the printer OFF and isolate from the mains power supply.

WARNING *The MagiCard Printer contains potentially lethal voltages.*

2. Hinge down the Pull-down Card Tray.

3. Hinge down the mechanism front cover and lift up the Top Cover to the vertical, as illustrated.
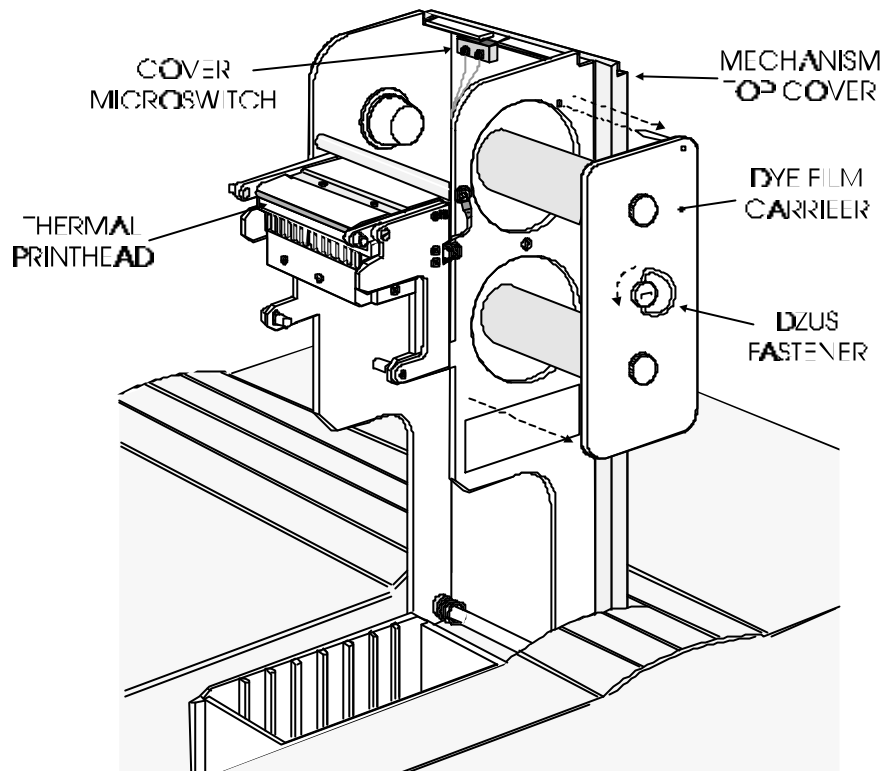
4. Whilst changing the dye film, and with the dye film removed, gently wipe the tip of the Thermal Printhead, using a gentle side-to-side action, with the Felt Tip Cleaning Pen supplied.

5. Using a tissue, remove any deposits from the pen tip and replace the pen cap to avoid solvent evaporation. Allow the solvent to evaporate fully from the printhead before proceeding to fit the new roll of dye film.

Cleaning the Tacky Roller

NOTE - *It is very important that these Cleaning Instructions are adhered to in order to maintain the MagiCard print quality.*

A Tacky Roller is located between the Cassette and the upper brushstrip. Its purpose is to pick up loose debris, fibres and particles from the upper surface of each card which would otherwise cause a blemish on the finished printed card. Depending on the type of cards used it is recommended that the Tacky Roller is cleaned each time the Card Cassette is filled, to recover its stickiness. Clean the Tacky Roller using a piece of Scotch adhesive tape. Refer to **Section E** to see how to remove the Tacky Roller.

Cleaning the Rubber Rollers

It is recommended that the Rubber Rollers in the transport mechanism be cleaned after every 1000 cards printed, using the recommended solvent-impregnated **Cleaning Card** as follows:

CAUTION: *Failure to clean the Rubber Rollers may result in mis-registration of images and problems in feeding cards out of the Cassette.*

WARNING *The recommended cleaning materials are inflammable. Clean the Thermal Printhead in a well-ventilated area and avoid naked flames. Extinguish any cigarettes.*

1. Hinge down the Pull-down Card Tray. Hinge down the Front Cover and lift up the Top Cover to the vertical position, and remove the Cassette. Switch ON the power supply.

2. Get the motor to turn the rollers by operating the Cover Microswitch in the hinged cover, by hand. Allow the motors to achieve full operating speed before applying the Cleaning Card to the rollers, otherwise the motors will stall and the rollers fail to turn.

3. Clean the Front Rubber Drive Roller every 1000 cards printed or if mis-registration occurs. Open a fresh solvent impregnated Cleaning Card and clean the Front Rubber Drive Roller by inserting the Cleaning Card from the front with the impregnated side faced down, with the rollers turning so that the roller turns against the Cleaning Card as shown in Position A.

4. Clean the Printhead Roller, normally positioned beneath the Thermal Printhead, by applying the Cleaning Card (with the impregnated side faced down) to the visible surfaces of the Printhead Roller so that the roller turns against the Cleaning Card as shown in Position D.

NOTE *Discard the Cleaning Card when it has dried out. One or two cards should be sufficient to carry out these instructions.*

5. Clean the Rear Rubber Drive Roller by inserting the Cleaning Card with the impregnated side faced down, from the rear with the rollers turning (ie, beneath the Card Preventer and the Sticky Roller) so that the lower roller turns against the Cleaning Card as shown in Position E.

6. Clean the Card Feed Rollers every 1000 cards printed or if problems occur with cards feeding from the Cassette. Using the Cleaning Card clean the two Card Feed Rollers. One is normally beneath the Card Cassette and the other is close to theSticky Roller. These rollers are geared together and cannot be turned by operating the Cover Microswitch as above. Turn one Card Feed Roller by hand whilst applying the Cleaning Card, with the impregnated side faced down, to the other Card Feed Roller. Repeat the cleaning process for the other Card Feed Roller as shown in Positions B and C.
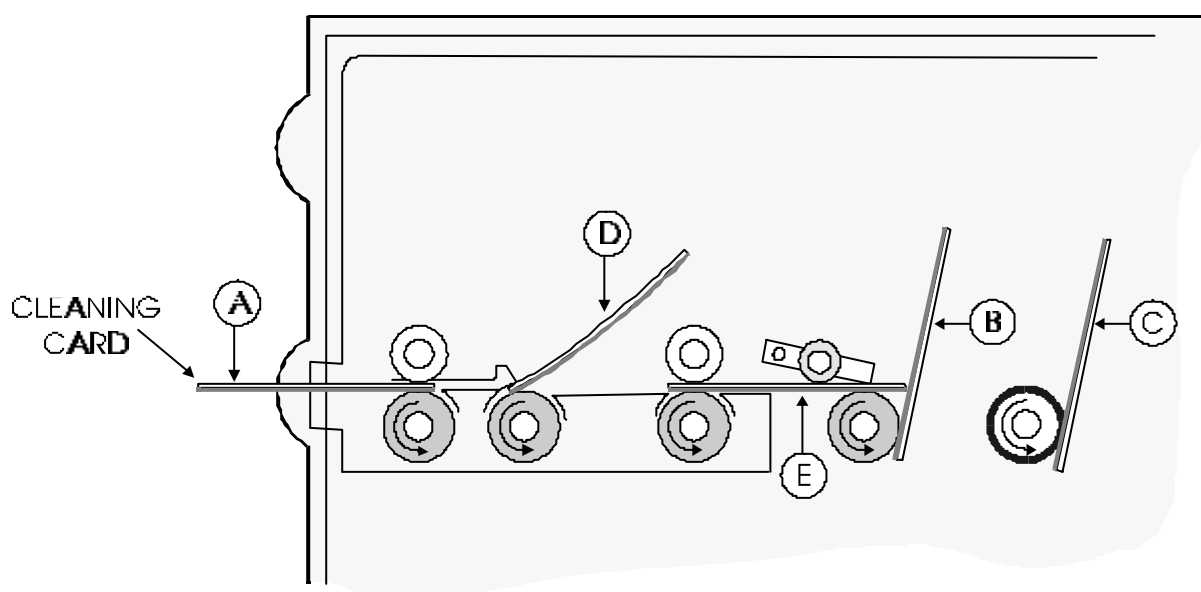
Cleaning the Optics

1. Using a small, soft lens brush, gently remove dust and debris from the visible mechanism and the brushstrips. Ensure the two light emitting diodes (LED's) adjacent to the Thermal Printhead, are clean and not obscured.

2. Check that the two apertures to the two optical sensors (one is 3mm diameter, the other is a fine slit in a stainless steel strip) are not obscured by debris.

Cleaning the Magnetic Head (if fitted)

1. The Magnetic Head is located beneath the card, between the thermal printhead and the front pinch rollers. To clean the Magnetic Head, manually insert the Cleaning Card into the mechanism and withdraw several times until the head is clean.

CAUTION *Take great care not to scratch the surface of the magnetic head with any sharp or abrasive material.*

LED Error Codes N

The MAGICARD printer has extensive error trapping facilities, to provide the operator or service agent with fault diagnosis information.

ON LINE and ERROR Indicator Flashing

The ON LINE indicator flashing indicates that the printer is receiving and processing a file of image data.

If the ERROR indicator is also illuminated continuously, it indicates that the file of image data is incomplete and that the printer is waiting for the rest. If this need cannot be met (perhaps the PC develops a fault or is reset), then the printer must be rebooted by switching off then on again. Ensure that any files in the Windows Spooler are aborted first.

If the ERROR indicator is also flashing this condition indicates an error in the file downloaded from the PC and the printer must be powered down. To ensure that the error will not repeat after reset, abort the transfer on the PC before resetting the printer by opening and closing the lid.

DYE FILM Indicator On

This indicates that the dye film has run out, the wrong film has been fitted with respect to the Driver settings or the film is jammed.

MEDIA OUT Indicator On

This indicates either the card hopper is empty or a card is jammed in the mechanism.

MEDIA OUT Indicator Flashing

This indicates that the printer is in hand fed mode and is waiting for the operator to manually insert a card through the front aperture.

PRINTING Indicator Flashing

This indicates that the printhead is too hot. The printer waits for it to cool down before Continuing with the print. If it does not cool down within about 60 seconds, the printer will indicate an ERROR as described below.

ERROR Indicator Flashing

This indicates a system hardware fault. The indicator will flash a number of pulses, pause, and then repeat. The number of flashes indicates the cause of the error. Note the number of flash pulses and contact your service agent.

ERROR and PRINTING Indicators Flashing

This indicates a system hardware fault. The indicators will flash a number of pulses, pause, and then repeat. The number of flashes indicates the cause of the error. Note the number of flash pulses and contact your service agent.

Notice

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Federal Communications Commission (FCC) Statement

Warning: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operating in a commercial environment.

Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Note: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Canadian Department of Communications Statement

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicable aux appareils numériques de la class A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

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MAGICARD 300 is a trademark of Ultra Electronics Limited.
PrintMagic is a trademark of Software 2000 Limited.
IBM, AT and PC are trademarks of International Business Machines Inc.

Limited Warranty Information

1) Coverage: Ultra Electronics Ltd Warrants that the MAGICARD printer shipped with this Warranty statement will conform to the manufacturers specifications and be free from defects in materials or workmanship for a period of **12 months** from the date of original purchase by the user, but there are additional conditions on the printhead Warranty (see para 2).

2) Limited Printhead Warranty: Ultra warrants that, under normal use and service, thermal printheads will be free from defects in material and workmanship for a period of twelve (12) months from the date of original purchase or for a quantity of 40,000 printed cards, whichever comes first, provided that Ultra-approved card media is utilised. If a Warranty claim is submitted for a defective printhead, Ultra will have the right to inspect the printhead and samples of the printed and blank ID cards used with it for the purpose of verifying that the claimed defect has not been caused by non-Ultra approved media, or by foreign particles or substances which have caused chemical or physical damage. Ultra's decision in any such claims shall be final.

3) Warranty Claims: If the MAGICARD printer proves defective during this period, please contact the Ultra Service Center, at the address and telephone/fax number given below. The Ultra Service Center personnel may first ask you to carry out certain simple checks to confirm the nature of the problem, and if a return is appropriate they will give you a Return Authorisation Number and consignment instructions to the appropriate repair center. Ultra will, at its option, repair or replace the defective parts at no charge to the customer.

4) Warranty Limitations: The Warranty does not apply to MAGICARD printers that have been:

- Damaged through physical or electrical mishandling.

- Damaged through operation in environments which are outside normal office conditions in terms of corrosive atmosphere, temperature, humidity, shock or vibration.

- Improperly installed or interfaced to other products which may exhibit software problems or expose the MAGICARD to improper voltages or control signals.

- Fitted with dye film rolls from any source other than Ultra Electronics, or have been used to print on anything other than card surfaces which are approved by Ultra and which will generally be made of PVC, be completely flat, and be free of harmful particles or substances.

- Serviced or interfered with by anyone other than an Ultra Authorised Service provider.

5) Shipping: Insurance and shipping costs incurred in sending the MAGICARD printer for Warranty service are the responsibility of the customer. Whenever possible Ultra Service Centers will use the same class of shipping service selected and paid for by the customer to return the printer. Return shipping costs from Ultra to the customer will be at Ultra's expense. After obtaining the Return Authorisation Number as described above, the printer should be securely packed in its original packaging with proof of date of purchase and a note describing the problem and quoting the Return Authorisation Number. The printer must be sent to the service center address supplied with the Return Authorisation Number by the main service center. This address may be different to the address listed below, but will generally be closer to you. Please also mark the Return Authorisation Number on the outside of the shipping carton.

6) Applicability: The Warranty and remedy provided above are exclusive and in lieu of all other warrants, either express or implied, including but not limited to, implied warranties of merchantability and fitness for a particular purpose. Any statements or representations made by any other person or firm are void.

Neither Ultra Electronics Ltd nor its affiliates shall be liable for any loss, inconvenience, or damage, including direct, special, incidental, or consequential damages, resulting from the use or inability to use the Ultra product, whether resulting from breach of Warranty or other legal theory even if Ultra has been advised of the possibility of such damage or loss.

This Warranty is governed by the laws of England. Any dispute arising out of or relating to this Warranty shall be submitted for arbitration of this dispute or disputes pursuant to the rules and regulations of the UK Arbitration Act.

This Warranty gives you specific legal rights, and you may also have other legal rights which vary from country to country so the above limitations and exclusions may not apply to all customers.

For Warranty enquiries please call or fax our Warranty Service Manager:-

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Ultra Electronics Limited
MAGICARD Service Center
Waverley House
Hampshire Road
Granby Estate
Weymouth
Dorset, DT4 9XD, U.K.

Tel: +44 (0)1305 784738

Fax: +44 (0)1305 777904

EC Declaration of Conformity

Manufacturer's Name: Ultra Electronics Limited.

Manufacturer's Address: Waverley House,
                                            Hampshire Road,
                                            Granby Estate,
                                            Weymouth,
                                            Dorset DT4 9XD
                                            England.

declares that the products

Product Name: MAGICARD 300 Color Card Printer.
Model Numbers: 3461-0002 (basic model)
                                          3471-0002 (+Mag Encoding option)
Product Name: MAGICARD 300plus Color Card Printer.
Model Numbers: 3493-1006 (basic model)
                                          3493-1002 (+Mag Encoding option)
                                          3493-0004 (+Chip Encoder contacts)

conform to the following Product Specifications:

Safety: IEC 950/EN60950
                                    Safety of information technology equipment
                                    including electrical business equipment.
 EMC: EN50-081-1 Generic Emission Standard
                                Part1: Domestic, Commercial and Light Industry.

                                EN50-082-1Generic Immunity Standard
                                Part 1: Domestic, Commercial and Light Industry.

Supplementary Information:
Date: June 1996